

**WHAT IS CLAIMED IS:**

1. A color filter substrate comprising:

a base member;

a color filter layer, which is provided on the base member and which is made up of a first group of color filters, a second group of color filters and a third group of color filters, the first, second and third groups of color filters transmitting light rays representing three different colors, respectively; and

a plurality of spacers, which are provided at predetermined relative positions for selected ones of the color filters, the selected color filters consisting of a number of color filters belonging to the first group, a number of color filters belonging to the second group, and a number of color filters belonging to the third group, the spacers being arranged such that in the selected color filters, the smallest number of color filters of the first, second or third group is at least 80% of the largest number of color filters of the first, second or third group.

2. The color filter substrate of claim 1, wherein the color filter substrate is used in a display device, and

wherein when attached to the display device, the spacers are arranged in at least 80% of a display area of the display device.

3. The color filter substrate of claim 1, wherein the spacers are provided in gaps between the color filters.

4. The color filter substrate of claim 1, wherein the spacers are columnar spacers.

5. The color filter substrate of claim 1, wherein the color filters are arranged at a predetermined pitch  $p_x$  in a row direction and at another predetermined pitch  $p_y$  in a column direction, respectively, and

wherein the spacers include a set of five spacers consisting of a first pair of spacers, a second pair of spacers, and a central spacer, the spacers of the first pair being separated from each other by a distance of  $m \cdot p_x$  (where  $m$  is an integer equal to or greater than 2 but is not a multiple of 3) in the row direction, the spacers of the second pair being separated from the spacers of the first pair by a distance of  $n \cdot p_y$  (where  $n$  is a positive integer and a multiple of 2) in the column direction, the central spacer being separated from the spacers of the first pair by a distance of  $m \cdot p_x/2$  in the row direction and by a distance of  $n \cdot p_y/2$  in the column direction, respectively.

6. The color filter substrate of claim 5, wherein the first pair of spacers and the central spacer consist of a

first spacer, a second spacer and a third spacer associated with the first, the second and the third groups of color filters, respectively, the second pair of spacers and the central spacer consist of another first spacer, another second spacer and another third spacer associated with the first, the second and the third groups of color filters, respectively.

7. The color filter substrate of claim 6, wherein the spacers of the first pair are adjacent to each other in the row direction, the spacers of the second pair are also adjacent to each other in the row direction, and the spacers of the first and second pairs include spacers that are adjacent to each other in the column direction.

8. The color filter substrate of claim 1, wherein the color filters include multiple sets of color filters, each said set of color filters consisting of three color filters belonging to the first, second and third groups, respectively, and

wherein the selected color filters, for which the spacers are provided, belong to mutually different sets of color filters.

9. The color filter substrate of claim 8, wherein the different sets of color filters, to which the color filters

provided with the spacers belong, are not adjacent to each other.

10. The color filter substrate of claim 1, wherein the spacers are arranged at a density of 800 spacers/cm<sup>2</sup> to 1,200 spacers/cm<sup>2</sup> with respect to the color filter layer.

11. A display device comprising:

two substrates;

a display medium layer provided between the two substrates;

a plurality of picture elements, each of which includes an associated portion of the display medium layer and which is made up of a first group of picture elements, a second group of picture elements and a third group of picture elements, the first, second and third groups of picture elements transmitting light rays representing three different colors, respectively; and

a plurality of spacers, which are provided at predetermined relative positions for selected ones of the picture elements, the selected picture elements consisting of a number of picture elements belonging to the first group, a number of picture elements belonging to the second group, and a number of picture elements belonging to the third group, the spacers being arranged such that in the selected picture

elements, the smallest number of picture elements of the first, second or third group is at least 80% of the largest number of picture elements of the first, second or third group.

12. The display device of claim 11, wherein the spacers are arranged in at least 80% of a display area of the display device.

13. The display device of claim 11, wherein the spacers are provided in gaps between the picture elements.

14. The display device of claim 11, wherein the spacers are columnar spacers.

15. The display device of claim 11, wherein the picture elements are arranged at a predetermined pitch  $p_x$  in a row direction and at another predetermined pitch  $p_y$  in a column direction, respectively, and

wherein the spacers include a set of five spacers consisting of a first pair of spacers, a second pair of spacers, and a central spacer, the spacers of the first pair being separated from each other by a distance of  $m \cdot p_x$  (where  $m$  is an integer equal to or greater than 2 but is not a multiple of 3) in the row direction, the spacers of the second

pair being separated from the spacers of the first pair by a distance of  $n \cdot p_y$  (where  $n$  is a positive integer and a multiple of 2) in the column direction, the central spacer being separated from the spacers of the first pair by a distance of  $m \cdot p_x/2$  in the row direction and by a distance of  $n \cdot p_y/2$  in the column direction, respectively.

16. The display device of claim 15, wherein the first pair of spacers and the central spacer consist of a first spacer, a second spacer and a third spacer associated with the first, the second and the third groups of picture elements, respectively, the second pair of spacers and the central spacer consist of another first spacer, another second spacer and another third spacer associated with the first, the second and the third groups of picture elements, respectively.

17. The display device of claim 16, wherein the spacers of the first pair are adjacent to each other in the row direction, the spacers of the second pair are also adjacent to each other in the row direction, and the spacers of the first and second pairs include spacers that are adjacent to each other in the column direction.

18. The display device of one of claims 11 to 17, wherein the picture elements include multiple pixels, each

consisting of three picture elements belonging to the first, second and third groups, respectively, and

wherein the selected picture elements, for which the spacers are provided, belong to mutually different pixels.

19. The display device of claim 18, wherein the different pixels, to which the picture elements provided with the spacers belong, are not adjacent to each other.

20. The display device of one of claims 11 to 19, wherein the spacers are arranged at a density of 800 spacers/cm<sup>2</sup> to 1,200 spacers/cm<sup>2</sup> in the display area.

21. The display device of one of claims 11 to 20, wherein one of the two substrates is a color filter substrate including a plurality of color filters that are provided for the multiple picture elements, and

wherein the other substrate is an active-matrix substrate including a plurality of picture element electrodes and a plurality of active elements that are provided for the multiple picture elements, and

wherein the spacers are included in the color filter substrate.

22. The display device of one of claims 11 to 21,

wherein one of the two substrates is a color filter substrate including a plurality of color filters that are provided for the multiple picture elements, and

wherein the other substrate is an active-matrix substrate including a plurality of picture element electrodes and a plurality of active elements that are provided for the multiple picture elements, and

wherein the spacers are included in the active-matrix substrate.